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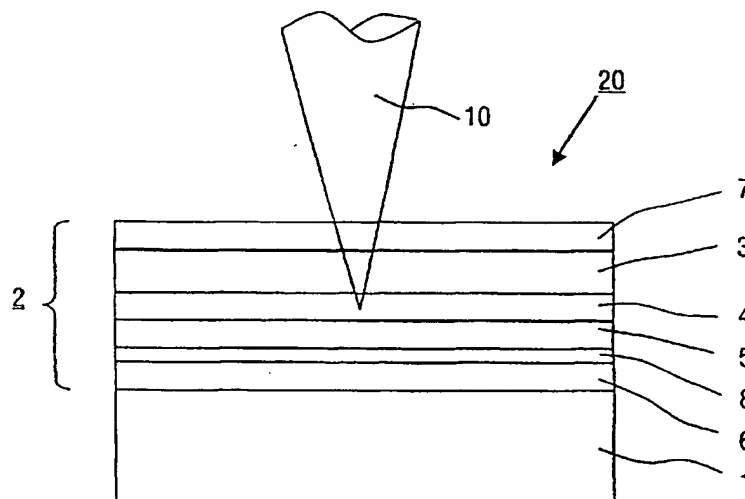
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(54) Title: **REWITABLE OPTICAL DATA STORAGE MEDIUM AND USE OF SUCH A MEDIUM**



(57) Abstract: A rewritable optical data storage medium (20) for high-speed recording by means of a focused radiation beam (10) is described. The medium (20) comprises a substrate (1) carrying a stack (2) of layers, which stack (2) comprises, a first auxiliary layer (3), a second auxiliary layer (5), and a recording layer (4) of a phase-change material mainly comprising an alloy of Sb and at least one of Ga and In. The recording layer (4) is interposed between the first auxiliary layer (3) and the second auxiliary layer (5). If the alloy is of a composition in atomic percentages defined by the formula: $Ga_xIn_ySb_z$ and $70 = z = 95$ and $x + y + z = 100$ the recording layer (4) has a crystallization speed making it suitable for direct overwrite high speed recording at a velocity of more than 10 m/s and an archival life stability of at least 10 years at 30°C. Further the recording layer (4) has a relatively low media noise.